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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,000	12/29/2000	Sadao Hirae	P/1596-51	9450

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OSTROLENK FABER GERB & SOFFEN
1180 AVENUE OF THE AMERICAS
NEW YORK, NY 100368403

EXAMINER

KORNAKOV, MICHAIL

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 08/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/751,000

Applicant(s)

HIRAE ET AL.

Examiner

Mikhail Kornakov

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. By the Amendment of 05/25/2006 claim 25 is amended to include the limitation that the deionized water is supplied to a spin center, and that the controller is functioning "...in a manner such as to cause the apparatus to generate oxygen radicals by means of the UV lamps and to remove the photoresist film from the substrate coated with the photoresist film".
2. Claims 25-28 are pending and are examined on the merits.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 25-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation currently presented "in a manner such as to cause the apparatus to generate oxygen radicals by means of the UV lamps and to remove the photoresist film from the substrate coated with the

photoresist film" is not supported by the instant specification. While the formation of oxygen radicals is supported by the disclosure there is no relationship between the controller that operates in a manner to cause such a production.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recited in claim 25 "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Interpretation of Claims

8. Limitations of a controller being structured to perform certain functions as appears in the instantly amended claim 25 are interpreted in light of the instant specification that on page 15 states: "The electric motor 5, drive mechanism 13, control valve 10 19, ozone water feeder 21, ultrasonic vibration power source 23, ozoneless UV lamp power source 37 noted above are controlled en bloc by the controller 17". This is the only place in the specification where Applicants elaborate on the functions of the controller. As for the structural units of the controller per se, those are absent in Applicants' specification. Flow diagram on Fig. 2 only shows the connection of the controller to the above mentioned units of the claimed apparatus.

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9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 25, 26 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP63-15710.

JP'710 teaches an article treating apparatus comprising supporting means, rotatable by a motor; a cleaning liquid ejecting device for supplying a cleaning liquid to the upper surface of the article; an ultraviolet radiating device, including a device body (reads on "a reflector, as instantly claimed) and a lamp, the said device positioned above the support means; a controller, which controls functioning of the structural elements of the apparatus, particularly liquid ejecting device, rotatable supporting means and the ultraviolet radiating device (Abstract; Fig. 1; pages 57-59). The indicated wavelength of UV light is 254 nm (page 58, col.5; page 59, col. 9), which is within the instantly claimed range. The cleaning liquid ejecting device of JP'710 is fully capable of supplying a cleaning solution having ozone dissolved in deionized water. The controller of the apparatus of JP'710 is identically to the instantly claimed one connected to the rotatable support means, to the ozone water supply to the UV lamp power supply, and is, therefore, fully capable of controlling the operation of UV radiating device to emit UV light to the substrate being covered with cleaning liquid, and perform all other functions as claimed by Applicants. There is no showing in Applicants specification of ANY specific features of the controller or any specific programming of the controller. Applicants' attention is drawn to the fact that apparatus claims must be structurally distinguishable from the prior art in terms of structure not function. **In re Danley**, 120

USPQ 528, 531 (CCPA 1959); Hewlett-Packard Co. V. Baush and Lomb, Inc., 15 USPQ2nd 1525, 1528 (Fed. Cir. 1990).

Thus, all the limitations of the instant claims in terms of structure are met by JP'710.

11. Claims 27 and 28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over JP63-15710 in view of Yeol et al (U.S. 5,983,909).

JP'710 remains silent about base adding means for adding a base to the cleaning liquid. However, auxiliary supply means for adding basic or other cleaning enhancing components are conventionally utilized in the art. Thus, Yeol teaches that aqueous alkaline cleaning solutions are conventionally employed in the art (col.1, lines 45-50). Therefore, one skilled in the art motivated by Yeol would have found obvious to provide base adding means in order to supply basic components into the cleaning solution, thus enhancing cleaning of articles in the treatment apparatus of JP'710.

Response to Arguments

12. Applicant's arguments filed 05/25/2006 have been fully considered but they are not persuasive. The crux of Applicants' arguments with regard to JP' 710 reference appears to hinge statement that the controller (17) of the instant claimed is **programmed** (emphasis added-M.K.) to operate in a manner that claimed in the instant claim 1 (sic) (supposedly claim 25). In response to this, it is noted that NOWHERE in the instant specification anything is said about controller being

programmed. Moreover, the only three places in the specification, wherein controller (17) appears to be described there is absolutely no word about any programming or about any structural limitations of the controller. The only what is mentioned in [0042], [0058] and [0075] sections of the instant specification, is that "...valve 19 operates under the control of a controller 17" (see 0052 and 0075) and that "...ozoneless UV lamp power source 37... are controlled en bloc by the controller 17."

As such Applicants arguments have no basis or grounds, or even no implicit ground or guidance in the instant specification with regard to being programmed or structured in a manner to cause the removal of photoresist. The controller (17) is not described in any manner with regard to its features or capability of being programmed.

And the allegations of Applicants that the motivation to program the computer comes from the present Application is a mere speculation because the instant Application does NOT recite programming the controller.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mikhail Kornakov whose telephone number is (571) 272-1303. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "M. Kornakov", with a long, sweeping horizontal line extending to the right.

Mikhail Kornakov
Primary Examiner
Art Unit 1746

08/01/2006